DASG-IMD

1 November 2004
Updated: 16 November2006

AHLTA SOP #4

Procurement and Life Cycle Replacement Management
For End-User Devices (EUD)

1. PURPOSE: To clearly define numbers and specifications for End-User Devices (EUD) using AHLTA; to provide guidance on how EUDs purchased for AHLTA will be deployed for utilization; and to define business rules and schedules for refreshing EUDs under life cycle replacement management.

2. REFERENCES:

   A. Tri-Service End-User Device Placement Criteria
   B. Military Health System Portable Computing Devices Configuration Guidance

3. SCOPE: This SOP applies to all members of the AHLTA Program Office and all AMEDD sites implementing AHLTA. The SRP recommendations are based on review of multiple SRP sites. SRP workflow was compared to present and future AHLTA capabilities including the Individual Medical Readiness (IMR) Module and automated Clinical Practice Guidelines (aCPG).

4. DEFINITIONS:

   A. End-User Device (EUD) – Hardware devices used for the purpose of AHLTA utilization which include such items as system workstations, printers, scanners, draw pads and signature pads.

   B. Tablet PC – A convertible or slate either running Windows XP Pro Tablet PC Edition or with touch screen capability

   C. Convertible – A laptop computer with a display screen that can rotate 180 degrees and close, converting the laptop to a slate configuration.

   D. Slate – A Tablet PC consisting of a display screen and no attached keyboard. The slate can be connected to a docking station to include keyboard and mouse.

5. EUD SPECIFICATIONS:

   A. Minimum PC specifications to use AHLTA as defined by CITPO; AMEDD minimum is in parentheses:

      1) 512 MB RAM (2GB RAM)

      2) 450 MHz Processor Speed (2.8 GHz)

3) 10 GB hard drive with 2 GB free

4) Network Connection

5) CD/ROM (The server can be used instead. This is NOT a CD/RW)

B. Minimum specifications for Tablet PC (convertible or slate):

1) 1 GB RAM (2GB RAM)

2) 866 MHz processor speed (1.2 GHz)

3) 20 GB hard drive with 2 GB free

4) CD/ROM and floppy drive optional

5) Docking station optional for convertible, required for slate (with USB keyboard)

6) Network Connection

7) CAC Reader – Internal or USB External

8) USB Mouse (wireless mouse, including Bluetooth and IR, not authorized)

9) Microsoft Windows XP Pro Tablet PC

10) One (1) Type I or Type II PCMCIA I/O slot

11) Two (2) USB I/O slots

12) TFT Color LCD with 16 MB video RAM, capable of 1024x768 resolution

13) Lithium-Ion battery (6-cell, 4.5 hour life) and Universal AC adapter

C. See Appendix A for list and pricing of current EUDs.

6. EUD INVENTORY

A. Functional Site Surveys (FSS) were conducted at each MTF to determine the total number of EUDs required for AHLTA deployment. Data derived from these surveys was based upon established Tri-Service device placement criteria which specify number and location for devices (as well as infrastructure needed to support them). These surveys also identify those EUDs that are at the site and meet present device requirements. These EUDs do not get replaced, but fall into the AHLTA life cycle management program.

B. Quantity and type of EUDs are validated by this office for all initial deployment orders. Convertibles and slates are only authorized as indicated in this SOP. If a site elects to substitute brand of PC or configuration of items, the site will be responsible for all the increased costs associated with that substitution, both at deployment and during lifecycle management.

7. EUD SELECTION BASED ON SPECIALTY

A. Offices of providers who work out of multiple exam rooms − Tablet PC convertible with CD-ROM and USB mouse (Currently capped at $2,300 per EUD with sites assuming responsibility for costs that exceed that cap).

B. Clerical areas, exam rooms and administrative areas − Desktop PCs.

C. Clinic Check-In areas − Desktop PCs with keyboard with integrated CAC reader. These sites will also receive one USB combination bar code and magnetic strip card reader.

D. Emergency Room Configuration

　　1) Provider offices – Tablet PC convertible with CD-ROM

　　2) Triage area – Tablet PC slate with docking station

　　3) Beds in ED Bay – Tablet PC convertible without CD-ROM at head of each bay bed wired to LAN. Note: Recommend telescoping arm mounts at MTF expense

　　4) ED Exam rooms that are not in bay area – Tablet PC convertible without CDROM in each ER exam room wired to LAN

　　5) Clerical and administrative areas – Desktop PC

　　6) Each 4−bed bay for "consultant work area" in ER – Tablet PC slate with docking station

E. Orthopedic Bay Treatment Areas (formerly called cast rooms)

　　1) Tablet PC convertible without CD-ROM wired to LAN (1 per every 2 treatment beds and no standard PCs)

　　2) For purpose of efficiency, this area is encouraged to consider wireless implementation and use

　　3) Orthopedic clinics will otherwise receive standard EUD deployment

F. Physical Therapy Bays

　　1) Tablet PC convertible without CD-ROM wired to LAN (1 per every 4 treatment beds and no standard PCs)

　　2) For purposes of efficiency, this area is encouraged to consider wireless implementation and use.

　　3) This clinic will otherwise receive standard EUD deployment.

G. SRP Stations (all computers are Desktops); temporary facilities do not qualify

　　1) Check-in Station

　　　　a. Three (3) PCs with CAC readers integrated into keyboard; each PC will have one (1) USB combination bar code and magnetic strip card reader deployed with each PC

　　　　b. Two (2) network printers

c. Purpose: Patient check-in at SRP site and creation of an appointment for the SRP visit.

2) Record Screening / Orders Initiation Station

    a. Ten (10) PCs

    b. No printers

    c. Purpose: Staff opens IMR and/or aCPG identifying readiness items that require updating. Items requiring updating are ordered in AHLTA. Paper tracking sheet completed and handed to soldier indicating stations that soldiers must visit and action needed. Soldier completes Pre-Post deployment screening on computer. Note: Future plan is to be able to import this data from a handheld device.

3) Optometry (Visual Screening) Station

    a. Two (2) PCs

    b. No printers

    c. Purpose: Document data on visual screening. Order Consults if needed

4) LAB – Blood Draw Station

    a. This remains a CHCS Legacy function

    b. No PCs or printers

    c. Purpose – Access and document labs/test drawn

5) Immunization Station

    a. Four (4) PCs with CAC reader integrated into keyboard

    b. No printers

    c. Purpose – Administer and document all immunizations utilizing the AHLTA Immunization Module and documenting immunizations given in the A/P tab of AHLTA.

6) Hearing Screening Station (if hearing booth present at site)

    a. One (1) PC

    b. No printers

    c. Purpose – Document hearing status as required

7) Dental Station: Presently no AHLTA deployment pending release of AHLTA dental application

8) Provider/Interview Station

    a. Eight (8) PCs

    b. No printers

    c. Purpose – Review pre-/post-deployment survey. Review medical history and entry of consults/tests as appropriate. Document and sign encounters upon completion.

9) Checkout Station

    a. Four (4) PCs

    b. Two (2) high-volume printers

    c. Purpose: Open IMR module and validate 100% "go" status or provide follow-up instructions after completion of consults/tests

10) Briefing Room: No AHLTA PCs or printers.

H. All other areas receive Desktop PCs

8. Other equipment deployed to support AHLTA

A. Printers: The AMEDD deploys one (1) printer for every twenty (20) PCs. Only network printers will be supplied. The areas specified below must receive a printer for placement in that area. If the mandatory number of printers is more than that determined by the above ratio, then the mandatory number of printers will be deployed. The site may determine how best to deploy the remaining printers in support of its local mission as long as the printers are in support of AHLTA use/deployment. Sites may discuss with the AMEDD Office if the number of printers exceeds their needs. In this case funding may be shifted to computer cost. Mandatory printer locations include:

1) Outpatient Clinic Check in Desk – One (1) printer placed within arm's reach of each clerical workstation at the desk

2) Outpatient Records Room

    a. High-volume printer – two (2) printers per Records Room

    b. Outpatient Records Clerks – one (1) printer per every two clerk workstations

    c. Correspondence section – one (1) printer per every workstation that deals directly with patients. This will facilitate point of care service.

B. Draw Pads- USB draw pads to be used with AHLTA Drawing Tool and possibly for patient signature capture in exam rooms.

1) One (1) USB draw pad per exam room desktop PC unless a tablet is deployed to this location

2) One (1) USB draw pad per provider office desktop PC unless a tablet is deployed to this location

3) MTF may desire to purchase more sophisticated draw pads for eye clinics.

4) Draw pads are not covered by warranty or replaced via central funds except as defined by CONOPS at time of refresh.

C. Signature Pads – These are to be used for capturing patient signatures on electronic forms in administrative areas using AHLTA.

1) One (1) USB signature pad per clinic check-in desk computer

2) One (1) USB signature pad per Record Room

3) Two (2) per Medical Correspondence Section

D. Combination Bar Code and Magnetic Stripe Swipe Reader – This device is to be used at check-in areas for matching ID card data to patient data in CHCS and in locations where large populations present for care at the same time such as immunization clinics for mass inoculations and SRP sites. Combination Bar Code and Magnetic Stripe Swipe Readers come with a one-year warranty but will not be replaced via central funds except as defined by CONOPS at time of refresh.

1) One (1) USB Combo bar code and magnetic stripe swipe reader per clinic check-in desk

2) Three (3) per SRP check-in station

3) Three (3) per MTF to use in medical record rooms

E. Scanners: See scanner policy (SOP 09)

9. RATIONALE FOR CHANGE TO TABLET PC: Tablet PC offers some inherent workflow advantages and will begin a vital step toward wireless access availability for those select users who will benefit from wireless. Finally, to help meet information assurance issues, the deployment of government mobile PCs to individuals who may need remote access is beneficial. Following are a few considerations of Tablet versus desktop use.

A. Advantages:

1) Use of inherent touchscreen capability

2) Use of inherent handwriting recognition for free text entry into appropriate comment boxes

3) Small size

4) Possibility of use of dictation, although this involves provider training of the application for improved accuracy.

5) User acceptance (user-dependent)

6) Speed of documentation (user-dependent)

7) Opportunity for provider to have remote access to AHLTA using government PC, thereby increasing information assurance compliance

8) Begins to facilitate opportunity for clinic wireless use where providers could be wireless while support staff continue to use PC wired to LAN. This decrease issues with multiple logon to a PC and provides backup for wireless access and battery life issues.

B. Disadvantages:

1) Replacement cost of mouse and stylus are MTF cost.

2) Possible inappropriate use of dictation/free text that would limit the benefit of an EMR and negate the ability of AHLTA to code the visit.

3) Logistical control of multiple mobile computers.

4) Durability

10. POLICY:

A. Cost per unit – See Appendix A for current EUD pricing. Includes on-site warranty service for four (4) years and refresh with technology available at the four-year mark by TMA. Any device that meets these criteria and therefore doesn't need to be replaced is "picked-up" on the TMA list as an AHLTA device that will be "refreshed" at TMA expense with all other devices. Generally, if a device is older than 30 months at time of FSS, it is replaced during EUD deployment.

B. EUD Installation and Testing – As part of the central deployment process, the installation, to include data transfer and testing of the computer image, is paid for by the central program office. This process is done to ensure that the individual medical care system functions appropriately. This installation and data migration can usually be scheduled around normal clinic hours or in a manner to minimize clinical disruptions.

C. Sites may require a different brand than Dell (for PCs) or Fujitsu (for Tablets) due to local on-site support or location preference based upon current holdings. If an alternate brand that meets a site's requirements is available, it will be acquired incorporating the same specifications as those above. If such a brand is not currently on the approved TIMPO list (CLIN) for purchase, TIMPO will be asked to price the product with identical specifications and to determine brand compatibility with AHLTA. Any cost difference above the standard CLIN will be the responsibility of the MTF at deployment and during lifecycle Sustainment.

D. Sites may augment or exceed established requirements, but may not degrade any requirement. These requirements have been determined to be an essential requirement to optimize use of AHLTA. Any augmentation is a "one-time" addition that must be provided in writing by the hospital commander. Compatibility will be certified by TIMPO for all augmentations. The cost for all augmentations will be borne by the MTF.

E. Sites may request changes to device placement based upon local mission if the area involved is not covered in the Tri-Service or the AMEDD-specific device placement criteria. Requested changes should be made in writing at the time of functional survey review.

F. Sites will place the EUDs purchased for AHLTA Implementation into the areas specified by the functional survey. Tablets must be placed in the location specified. If a provider's computer is not being replaced, the site may relocate the existing provider computer. For patient safety, the contractor will be allowed to deploy and test each device. Computers that are being replaced will remain the property of the MTF to be used at its discretion. Since AHLTA devices are under lifecycle replacement for the purpose of clinical care, AHLTA EUDs must remain in clinical care and specified administrative areas as defined by the placement criteria.

11. Life Cycle Replacement Management (for Block I EUDs)

A. The AMEDD AHLTA Program Office will maintain a plan for the replacement of EUDs in support of AHLTA under lifecycle replacement management. Refresh of EUDs will be in accordance with TMA policy and this SOP at the time of life cycle replacement.

B. Any variance in the type and number of EUDs ordered other than those authorized must be approved by the AMEDD AHLTA Program Manager. If a site elects to substitute brand of PC or configuration of items, the site will be responsible for all the increased costs associated with that substitution, both at deployment and during lifecycle management.
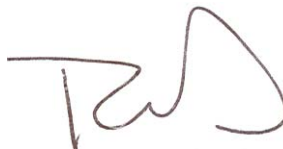
C. EUDs older than four (4) years old will fall into the life cycle replacement process. MTFs will complete either a full refresh of all EUDs every four years or a partial refresh every two years. Partial refresh will be differentiated by room type for EUD placement.

1) Part 1 Refresh: All provider offices (P), provider/exam room combinations (P/E) and exam rooms (E).

2) Part 2 Refresh: All other room types (treatment rooms (T), screening rooms (S) front desk (FD, FD/R), record rooms (R) and those categorized as other (O).

D. Appendix C outlines the life cycle replacement schedule for FY 07 through FY10.

12. Proponent for this SOP is the Program Office Director at Commercial 706-787-7165 or DSN 773-7165.

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Appendix A

Contract Line Item Number (CLIN) Descriptions of current EUDs
(All costs listed are CONUS fees)

1. Desktop PCs – Dell and Micron desktop PCs are both available for deployment and are chosen based on location and support availability, particularly for OCONUS sites. The DELL Small Form Factor is the PC of choice.

    A. Current Model – DELL GX745 SFF

    B. Cost: $1,318.86 (Unit cost: $1,293 plus 2% GSA Fee $25.86)

    C. Specifications:

        1) 2 GB RAM
        2) Core 2 Duo E6300/1.86GHz, 2M 1066FSB
        3) 80 GB hard drive
        4) DVD/CDRW Combo Drive, Floppy Drive
        5) Integrated NIC and video
        6) USB Smart Card Reader Keyboard
        7) 17" Flat Panel Monitor with sound card
        8) Microsoft Windows XP Pro with Media and NTFS
        9) ActivCard Gold v3.0 Middleware License
        10) Four (4) year Gold Tech Support Warranty

2. Tablet Lifebook PC – Tablet convertibles manufactured by Fujitsu and Lenovo/IBM are deployed based on support availability, particularly for OCONUS sites. The Fujitsu Lifebook is the preferred make for all locations where available.

    A. Current Model – Fujitsu Lifebook T 4210

    B. Cost Without Optical Drive: $2,284.80 (Unit cost $2,240 plus 2% GSA fee $44.80)

    C. Cost With Optical Drive: $2,319.48 (Unit cost $2, 274 plus 2% GSA fee $45.48)

    D. Specifications:

        1) Intel® Pentium® M Processor T2300e (1.66 GHz, 2 MB L2 cache, 667 MHz FSB)
        2) Microsoft® Windows® XP Tablet PC Edition 2005 with Microsoft® Office OneNote® 2003
        3) 12.1" XGA TFT indoor display
        4) 2 GB DDR2 667MHz SDRAM Memory (1GB x2)
        5) 40 GB SATA 150 (5400 rpm) shock-mounted hard drive
        6) Internal modem
        7) 10/100/1000 Base-T/Tx Ethernet
        8) Atheros Super AG® wireless LAN (802.11a/b/g)
        9) CAC Middleware
        10) Optional Modular DVD/CD-RW Combo Drive

3. Tablet Slate PC – Tablet slates manufactured by Fujitsu and Motion are deployed based on support availability for both CONUS and OCONUS sites. Fujitsu stylistic is the primary slate of choice.

    A. Current Model - Fujitsu Stylistic ST5032D

    B. Cost: $3,191.58 (Unit cost $3,129 plus 2% GSA fee $62.58)

    C. Specifications:

        1) Intel® Pentium® M Processor 753 (1.20 GHz, 2 MB L2 cache, 400 MHz FSB)
        2) Microsoft Windows XP Tablet PC Edition 2005 and Microsoft® Office OneNote® 2003
        3) 12.1" XGA TFT indoor/outdoor (Transmissive) display with 160° viewing angles
        4) USB Keyboard
        5) Tablet Dock with DVD/CD-RW Combo Drive and AC Adapter
        6) 2 GB RAM
        7) 40 GB ATA 100 5400 rpm shock-mounted hard drive
        8) Atheros Super AG® wireless LAN (802.11a/b/g)
        9) No Floppy Disk Drive; No Mouse
        10) Integrated CAC reader

4. Draw Pad – WACOM Technologies Intuos3 4x5 USB Pen Tablet – $214.20 (Unit cost: $210 + $4.20 GSA Fee)

5. Scanner – Hewlett Packard ScanJet SJ5590 – $398.82 (Unit cost: $391 + $7.82 GSA Fee)

6. Bar Code Scanner* – Symbol LS3408 Rugged Scanner Bundle PS2 Cable **-** $471.24 (Unit cost: $462 + $9.24 GSA Fee)

7. Bar Code Printer* – Zebra LP 2844-Z Direct Thermal w/serial, USB and internal Ethernet desktop printer bundle - $612 (Unit cost: $600 +$12 GSA Fee)

8. Network Printers- HP LaserJet P3005x Black & White – $1,300.50 (Unit cost: $1275 + $25.50 GSA Fee)

9. High Volume Printers – HP LaserJet 9050dn Black & White - $5300.94 (Unit cost: $5197 + $103.94 GSA Fee); HP LaserJet 9040dn Black & White – $4,835.82 (Unit cost: $4741 + $94.82 GSA fee)

10. Signature Pad – Interlink ePad - $135.81 (Unit cost $133.15 plus $2.66 GSA Fee)

11. Combo Bar Code and Magnetic Stripe Swipe Reader – Omni ID Tech, Model WCR3237-633U $215.22 (Unit cost: $211 + $4.22 GSA Fee)

* Purchased for Optometry Clinics in support of SRTSII

Appendix B

EUD Repair during the Warranty Period

1. Failure During Installation – The installing contractor will be responsible for getting the EUD repaired or replaced when failure occurs during the installation of a device.

2. Failure After installation - For any EUD that fails after installation, a trouble call shall be initiated with the local site Help Desk in accordance with local procedures.

   A. If the problem cannot be resolved locally by the site Help Desk, the customer (or local Help Desk, as local policy dictates) should call the MHS Help Desk line at 800.600.9332 or send an email to chcs2help@mhs-helpdesk.com to initiate a trouble ticket.

      1) When initiating a trouble ticket, the following information on the user should be provided:
         a. Name and rank
         b. Telephone and email address
         c. Serial number or tag number of the EUD device in need of repair

      2) MHS Help Desk will log the trouble call and will track the process until closure.

3. This is the single method to achieve warranty repair. If the site does not follow this process costs for repair will become the responsibility of the site or individual.

Appendix C

EUD Life Cycle Replacement Schedule FY07-FY10

Order Month	Delivery Month	MTF	Post	Refresh
FY07				
Oct 06	Jan 07	McDonald Army Community Hospital	Fort Eustis	Full
Dec 06	Mar 07	WB Army Medical Center	Fort Bliss	Split
FY08				
Oct 07	Jan 08	Fort Lee MEDDAC	Fort Lee	Full
Nov 07	Feb 08	Lawrence Joel Army Health Clinic	Fort McPherson	Full
Dec 07	Mar 08	Winn Army Community Hospital	Fort Stewart	Split
Dec 07	Mar 08	US Army MEDDAC - Heidelberg	Heidelberg	Split
Dec 07	Mar 08	Eisenhower Army Medical Center	Fort Gordon	Split
Jan 08	Apr 08	Blanchfield Army Community Hospital	Fort Campbell	Split
Jan 08	Apr 08	Martin Army Community Hospital	Fort Benning	Split
Feb 08	May 08	Lyster Army Health Center	Fort Rucker	Full
Feb 08	May 08	Fox Army Health Clinic	Redstone Arsenal	Full
Mar 08	Jun 08	USA MEDDAC - AK	Fort Wainwright	Full
Mar 08	Jun 08	Fort Richardson Army Health Clinic	Fort Richardson	Full
Apr 08	Jul 08	Fort Leonard Wood MEDDAC	Fort Leonard Wood	Full
Apr 08	Jul 08	Moncrief Army Community Hospital	Fort Jackson	Full
Apr 08	Jul 08	Fort Polk	Fort Polk	Full
Jun 08	Sep 08	Reynolds Army Community Hospital	Fort Sill	Split
Jun 08	Sep 08	Darnall Army Community Hospital	Fort Hood	Split
FY09				
Oct 08	Jan 09	Womack Army Medical Center	Fort Bragg	Split
Oct 08	Jan 09	Brooke Army Medical Center	BAMC	Split
Nov 08	Mar 09	Evans Army Community Hospital	Fort Carson	Split
Dec 08	Mar 09	WB Army Medical Center	Fort Bliss	Split
Dec 08	Mar 09	LRMC	Landstuhl	Split
Jan 09	Apr 09	Tripler Amry Medical Center	Tripler	Split
Mar 09	Jun 09	US Army Hospital - Wurzburg	Wurzburg	Split
Apr 09	Jul 09	Madigan Army Medical Center	Madigan	Split
Jun 09	Sep 09	Walter Reed Army Medical Center	WRAMC	Split
Jul 09	Oct 09	Raymond W. Bliss Army Health Center	Fort Huachuca	Full

Order Month	Delivery Month	MTF	Post	Refresh
FY10				
Oct 09	Jan 10	Drum Health Clinic	Fort Drum	Full
Oct 09	Jan 10	DeWitt Army Community Hospital	Fort Belvoir	Split
Nov 09	Feb 10	Irwin Army Community Hospital	Fort Riley	Full
Dec 09	Mar 10	Winn Army Community Hospital	Fort Stewart	Split
Dec 09	Apr 10	US Army MEDDAC - Heidelberg	Heidelberg	Split
Dec 09	Mar 10	121 Hospital	Seoul	Full
Dec 09	Mar 10	Eisenhower Army Medical Center	Fort Gordon	Split
Jan 10	Apr 10	Blanchfield Army Community Hospital	Fort Campbell	Split
Jan 10	Apr 10	Martin Army Community Hospital	Fort Benning	Split
Jan 10	Apr 10	Kimbrough Ambulatory Care Center	Fort Meade	Full
Jan 10	Apr 10	Munson Army Health Center	Fort Leavenworth	Full
Feb 10	May 10	Weed Army Community Hospital/Yuma	Fort Irwin	Full
Feb 10	May 10	USA MEDDAC - JAPAN	Camp Zama	Full
Mar 10	Jun 10	Paterson Army Health Clinic	Fort Monmouth	Full
Mar 10	Jun 10	Ireland Army Community Hospital	Fort Knox	Split
Apr 10	Jul 10	West Point Army Community Hospital	West Point	Full
May 10	Aug 10	Dugway Group (DPG, Tooele, Deseret)	Dugway Group	Full
Jun 10	Sep 10	Reynolds Army Community Hospital	Fort Sill	Split
Jun 10	Sep 10	Darnall Army Community Hospital	Fort Hood	Split
Jun 10	Sep 10	Rodriquez Army Health Clinic	Fort Buchanan	Full